

## west virginia department of environmental protection

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Jim Justice, Governor Austin Caperton, Cabinet Secretary www.dep.wv.gov

NAD83

#### ENGINEERING EVALUATION / FACT SHEET

## **BACKGROUND INFORMATION**

Application No.:

G10-D102G 061-00161

Plant ID No.: Applicant:

Coresco, LLC

Facility Name:

Maidsville Coal Preparation Plant

Location:

Maidsville, Monongalia County, WV 1221 (Bituminous Coal & Lignite - Surface)

SIC Codes:

1222 (Bituminous Coal & Lignite - Underground)

NAICS Codes:

212111 (Bituminous Coal and Lignite Surface Mining)

212112 (Bituminous Coal Underground Mining)

Application Type:

Class II Administrative Update

Received Date:

November 16, 2016

Engineer Assigned:

Dan Roberts

Fee Amount:

\$300

Date Received: November 16, 2016 Applicant's Ad Date: November 16, 2016 Newspaper: The Dominion Post Complete Date:

**UTM Coordinates:** 

January 18, 2017 Easting: 588.7 km

Northing: 4395.4 km Zone: 17

Lat/Lon Coordinates: Latitude 39,703850

Longitude -79.965333

Description:

Modification to increase the raw coal throughput over existing belt conveyors BC-1, BC-9, and BC-12 from 3,000,000 TPY to 5,020,000 TPY, which will affect transfer points TP1 and TP29. The maximum hourly throughput rates for these pieces of equipment will remain unchanged at 950 TPH. These belt conveyors receive raw coal from mining operations in Pennsylvania and

transfer it back offsite to the Longview Power, LLC power plant.

#### **BACKGROUND**

Coresco, LLC owns and operates the existing Maidsville Coal Preparation Plant under current General Permit registration G10-D102F, which was approved on December 18, 2014.

## DESCRIPTION OF PROCESS (taken directly from the application)

Coresco, LLC (Coresco) proposes to revise General Permit Registration G10-D102F for the coal preparation plant at their Maidsville site located near Maidsville in Monongalia County, West Virginia.

The only change in this application for a Class II Administrative Update is to increase the throughput received on BC-1 from the overland conveyor for coal from operations in Pennsylvania to the conveyors that transfer coal offsite. This will increase throughput on the following transfer points: TP-1 and TP-29. Coresco will not increase the throughput to the stockpiles, as all increased capacity will be transported directly offsite by BC-1, BC-9 and BC-12.

Raw coal can arrive at the site by truck or the overland conveyor system. Coal from the overland system conveyor BC-1/PE can transfer (TP-1/FE) to radial stacker RS-1/PE then onto stockpile SP-1/NC (TP-2/NC) or transfer (TP-1/FE) to BC-9/PE. Coal from BC-9/PE transfers (TP-29/FE) to BC-12/PE then offsite or to BC-10/PE to RS-2/PE (TP-30/PE) to SP-5/NC (TP-31/NC). Coal from SP-1/NC and SP-5/NC is reclaimed by truck/dozer/endloader (TP-43/NC). BC-11/PE is fed by feeder/breaker FB-2/FE (TP-37/NC, TP-38/PE), which in turn transfers onto BC-12/PE (TP-33/FE). Coal from other facility stockpiling can also be transported to, and reclaimed by, the system.

Raw coal from stockpiling is transferred (TP-4/PE) by truck or endloader to bin BS-1/PE to belt conveyor BC-1A/PE (TP-5/PE) then to sizer SZ-1/FE (TP-6/FE) and transferred (TP-7/FE) to conveyor BC-2/PE where it enters the plant wet circuit. Coal exits the wet circuit at multiple locations. It can leave the wet circuit (TP-9/FE) via conveyor BC-3/PE where it is deposited into stockpile SP-6/NC (TP-10/NC). Coal is removed from SP-6/NC by truck via endloader (TP-11/NC). TP-15/FE, TP-16/FE, TP-17/FE, & TP-19/FE transfer to the clean coal conveyor BC-5/PE where it is deposited (TP-20/PE) onto radial stacker RS-3/PE. RS-3/PE then transfers (TP-21/NC) the clean coal to the stockpile SP-4/NC. Coal from SP-4/NC is loaded to truck by endloader (TP-11/NC).

Raw coal and clean coal are managed through a series of stockpiles (SP-2/NC, SP-3/NC, SP-4/NC, SP-6/NC, SP-7/NC, SP-9/NC, SP-10/NC, SP-11/NC and SP-12/NC), which are collectively referred to in this permit application and the emissions calculations as the "stockpile system." Coal can be transferred to any of the stockpiles in the stockpile system by truck (TP-3/NC). Coal is removed from the stockpile system via endloader (TP-34/NC) and transported by truck.

Refuse leaves the plant (TP-23/FE) via BC-6/PE and transfers (TP-24/PE) to BC-7/PE and then transfers from BC-7/PE to the refuse area by conveyor belts BC-8/PE (TP-25/PE) to BC-13/PE (TP-26/PE) to BC-14/PE (TP-27/PE) to BC-15/PE (TP-28/PE) to radial stacker RS-4/PE (TP-39/PE) to the refuse area (TP-40/NC). There will be endloader and trucking activities associated with the management of refuse (TP-41/NC, TP-42/NC). Some trucking is required to develop the refuse area and the refuse conveyors will be placed into service as needed to develop the refuse pile. Initially

there will be two (2) conveyors (BC-6/PE and BC-7/PE) to the radial stacker RS-4/PE. As development continues, BC-7/PE may be lengthened and the additional conveyors (BC-8/PE, BC-13/PE, BC-14/PE, and BC-15/PE) will be added. Radial stacker RS-4/PE will be located at a transfer location where needed. Wet belt press material leaves the plant (TP-23/FE) on conveyor BC-17/PE to BC-18/PE (TP-45/PE) to stockpile SP-8/NC (TP-46/NC).

Portable Crusher HM-1 (TP47/PE, TP-48/NC) is available onsite and can be utilized to size material at the Preparation Plant. Portable screen SC-1 is fed (TP-49/PE) from stockpile SP-2 or SP-3. The coal exits the screen (TP-50/NC and TP-51/NC) on two conveyors. One conveyor (BC-19/NC) transfers coal (TP-52/NC) to an "under" pile, which is located within the footprint of SP-5. The other conveyor (BC-20/NC) transfers coal (TP-53/NC) to an "over" pile (also located within the footprint of SP-5), which is transferred immediately to the portable hammermill crusher (HM-1).

A Storage Bin (BS-3/FE) with baghouse dust collection (emission point E1) supplies the Preparation Plant with magnetite.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from registration applications G10-D102G, G10-D102F, G10-D102E, G10-D102D, G10-D102C, G10-D102B, G10-D102A and G10-D102 and any amendments thereto:

Equip- ment	Date of Construction,	G10-D		Maximu	m Capacity	Control	Associated Transfer Points		
ID No.	Reconstruction or Modification <sup>1</sup>	Applicable Sections <sup>2</sup>	Description	ТРН	TPY	Equip- ment <sup>3</sup>	Location: B -Before A -After	ID. No.	Control Equip- ment <sup>3</sup>
			Raw Coal Circuit						
BC-1	M 2017 C 8/2010	5 and 8	36" Pennsylvania to West Virginia Overland Conveyor receives raw coal from PA and transfers to open stockpile SP-1 via conveyor RS1 or transfers to belt conveyor BC-9	950	5,020,000	PE	A	TP-1	FE
RS-1	C 11/2009	5 and 8	42" Radial Stacker receives raw coal to be cleaned from overland conveyor BC-1 and transfers to open stockpile SP-1	950	3,000,000	PE	B A	TP-1 TP-2	FE MD
SP-1	C 6/2009	5 and 8	Open Raw Coal Storage Stockpile - maximum 35,000 tons capacity, 120,000 (TYPO) ft <sup>2</sup> base area and 51' height - receives raw coal to be cleaned via radial stacker RS-1. Raw coal is then transferred to the preparation plant by endloader/trucks.	950	3,000,000	N	B A	TP-2 TP-43	MD MD
SP-7	M 11/2010 C 8/2009	5 and 8	Open Raw Coal/Clean Coal Storage Stockpile - maximum 315,000 tons capacity, 272,000 ft <sup>2</sup> base area and 50' height - receives raw coal/clean coal from trucks. Raw coal is then transferred as required by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
SP-9	C 6/2009	5 and 8	Open Raw Coal/Clean Coal Storage Stockpile - maximum 30,000 tons capacity, 88,000 ft² base area and 30' height - receives raw coal/clean coal from trucks. Raw coal is then transferred as required by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
SP-10	C 10/2010	5 and 8	Open Raw Coal/Clean Coal Storage Stockpile - maximum 110,000 tons capacity, 100,000 ft <sup>2</sup> base area and 50' height - receives raw coal/clean coal from trucks. Raw coal is then transferred as required by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
SP-11	C 10/2010	5 and 8	Open Raw Coal/Clean Coal Storage Stockpile - maximum 345,000 tons capacity, 375,000 ft <sup>2</sup> base area and 50' height - receives raw coal/clean coal from trucks. Raw coal is then transferred as required by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
SP-12	M 2014 C 2012	5 and 8	Open Raw Coal/Clean Coal Storage Stockpile - maximum 350,000 tons capacity, 309,276 ft <sup>2</sup> base area and 50' height - receives raw coal/clean coal from trucks. Raw coal is then transferred as required by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD

Equip- ment	Date of Construction,	G10-D		Maxim	um Capacity	Control	Associated Transfer Points		
ID No.	Reconstruction or Modification <sup>1</sup>	Applicable Sections <sup>2</sup>	Description	ТРН	ТРУ	Equip- ment <sup>3</sup>	Location: B -Before A -After	ID. No.	Control Equip- ment <sup>3</sup>
			Longview Circuit		•	<del></del>			
SP-2	M 2014 M 11/2010 C 5/2010	5 and 8	60,000 ft <sup>2</sup> - Open Raw Coal Storage Stockpile - maximum 25,000 tons capacity, 60,000 ft <sup>2</sup> base area and 20' height - receives raw coal for Longview via trucks. Raw coal is then transferred to feed/breaker FB-2 by endloader/dozer.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
BC-9	M 2017 C 12/2009	5 and 8	42" Belt Conveyor receives raw coal ready for Longview from overland conveyor BC-1 and transfers to belt conveyor BC-12 (To Longview Power Plant) or to belt conveyor BC-10	950	5,020,000	PE	B A	TP-1 TP-29	FE FE
BC-12	M 2017 C 10/2009	5 and 8	42" Longview Belt Conveyor receives raw coal for Longview from belt conveyor BC-9 and belt conveyor BC-11, then transfers offsite to Longview Power Plant	950	5,020,000	PE	B B A	TP-29 TP-33 Offsite	FE FE
BC-10	C 2/2010	5 and 8	42" Belt Conveyor receives raw coal for Longview from belt conveyor BC-9 and transfers to radial stacker RS-2	950	3,000,000	PE	B A	TP-29 TP-30	FE PE
RS-2	C 6/2010	5 and 8	42" Radial Stacker receives raw coal for Longview from belt conveyor BC-10 and transfers onto stockpile SP-5	950	3,000,000	PE	B A	TP-30 TP-31	PE MD
SP-5	M 11/2010 M 2/2010 C 4/2009	5 and 8	Open Raw Coal Storage Stockpile - maximum 300,000 tons capacity, 252,000 ft <sup>2</sup> base area and 51' height - receives raw coal for Longview via radial stacker RS-2 and sized coal from BC-19, BC-20 and HM-1. An endloader transfers the coal to trucks for shipment to the preparation plant.	950	3,000,000	N	B B B	TP-31 TP-52 TP-53 TP-43	MD NC NC NC MD
SC-1	C 7/2014	5 and 8	Double Deck Finlay 693+ Supertrack Portable Screen - receives raw coal from SP-2 and SP-3, classifies it and drops the undersize to SP-5 and the oversize to an over-pile area within SP-5 to then be crushed by HM-1 (see below)	300	3,000,000	PE	B A A	TP-49 TP-50 TP-51	PE PE PE
BC-19	C 7/2014	5 and 8	Belt Conveyor - receives undersize raw coal from SC-1 and transfers it to SP-5 (see above)	300	1,200,000	NC	B A	TP-50 TP-52	PE NC
3C-20	C 7/2014	5 and 8	Belt Conveyor - receives oversize raw coal from SC-1 and transfers it to an over-pile area within SP-5 (see above) and then an endloader transfers it to HM-1	300	1,800,000	NC	B A	TP-51 TP-53	PE NC
HM-i	C 7/2014	5 and 8	Hammermill Crusher Screen Machine Impactor Model 4043 - receives oversize raw coal from an over-pile within SP-5, crushes it and then it drops back onto SP-5 (see above)	500	3,000,000	FE	B A	TP-47 TP-48	PE NC
FB-2	C 11/2009		Stamler Feed/Breaker receives raw coal from endloader/dozer and feeds onto belt conveyor BC-11.	950	3,000,000	FE	B A	TP-37 TP-38	MD PE
3C-11	C 11/2009	5 and 8	42" Belt Conveyor receives raw coal for Longview from feed/breaker FB-2 then transfers to Longview belt conveyor BC-12.	950	3,000,000	PE	B A	TP-38 TP-33	PE FE
			Plant Feed Circuit						
SP-3	M 11/2010 C 6/2009	5 and 8	Open Raw Coal Storage Stockpile - maximum 120,000 tons capacity, 128,000 ft <sup>2</sup> base area and 20' height - receives raw coal to be cleaned via truck. Raw coal is then transferred to bin BS-1 by endloader.	600	5,256,000	N	B A	TP-3 TP-34	MD MD
BS-1	M 7/2009 C 10/2008		Dump Bin - 175 tons capacity - receives raw coal from stockpile SP-3 and transfers to belt conveyor BC-1A.	600	5,256,000	PE-WS	B A	TP-4 TP-5	PE PE
C-1A	M 7/2009 C 11/2008		36" Belt Conveyor receives raw coal from dump bin BS-1 and transfers to sizer SZ-1	600	5,256,000	PE	B A	TP-5 TP-6	PE FE
SZ-1	M 7/2009 C 12/2008		DR Sizer receives raw coal (8"X0) from belt conveyor BC-IA, sizes (2"X0) then transfers onto belt conveyor BC-2.	600	5,256,000	FE	B A	TP-6 TP-7	FE FE
3C-2	M 7/2009 C 3/2009		86" Belt Conveyor receives raw coal from sizer SZ-1then ransfers to preparation plant wet process	600	5,256,000	PE	B A	TP-7 TP-8	FE FE
3S-3	M 7/2009 C 3/2009		Storage Bin for Magnetite - 50 tons capacity - used in the wet wash process	0.3	2,628	FE	N/A	N/A	N/A
SC-1	M 7/2009 C 3/2009		Screw Conveyor receives magnetite from storage bin BS-3 and transfers to wet wash process	0.3	2,628	FE	N/A	N/A	N/A
			Clean Coal Circuit						
3C-3	M 7/2009 C 4/2009		6" Belt Conveyor receives clean coal from wet process and ransfers to stockpile SP-6	600	5,256,000	PE		TP-9 TP-10	FE MD

Equip- ment	Date of Construction,	G10-D		Maximu	ım Capacity	Control	Associate	d Transf	er Points
ID No.	Reconstruction or Modification <sup>1</sup>	Applicable Sections <sup>2</sup>	Description	ТРН	TPY	Equip- ment <sup>3</sup>	Location: B -Before A -After	ID. No.	Control Equip- ment <sup>3</sup>
SP-6	M 7/2009 C 6/2009	5 and 8	Open Clean Coal Storage Stockpile - maximum 10,000 tons capacity, 10,000 ft² base area and 20' height - receives clean coal from belt conveyor BC-3. Clean coal is then loaded onto trucks by endloader.	600	5,256,000	N	B A	TP-10 TP-11	MD MD
BC-5	M 7/2009 C 1/2009	5 and 8	36" Collection Belt Conveyor receives clean coal from various points within wet process and transfers to radial stacker RS-3	600	5,256,000	PE	B B B A	TP-15 TP-16 TP-17 TP-19 TP-20	FE FE FE FE PE
RS-3	M 7/2009 C 4/2009	5 and 8	36" Radial Stacker receives clean coal from collection belt conveyor BC-5 and transfers onto stockpile SP-4.	600	5,256,000	PE	B A	TP-20 TP-21	PE MD
SP-4	M 7/2009 C 6/2009	5 and 8	Open Clean Coal Storage Stockpile - maximum 20,000 tons capacity, 70,000 ft <sup>2</sup> base area and 20' height - receives clean coal from radial stacker RS-3. Clean coal is then loaded onto trucks by endloader.	600	5,256,000	N	B A	TP-21 TP-11	MD MD
			Refuse Circuit						
BC-6	M 7/2009 C 2/2009	5 and 8	36" Refuse Belt Conveyor receives refuse from the Preparation Plant and transfers to belt conveyor BC-7	600	5,256,000	PE	B A	TP-23 TP-24	FE PE
BC-7	M 7/2009 C 5/2009	5 and 8	36" Refuse Belt Conveyor receives refuse from belt conveyor BC-6 and transfers to belt conveyor BC-8 when installed.	600	5,256,000	PE	B A	TP-24 TP-25	PE PE
BC-8	Not Yet Constructed *	5 and 8	36" Refuse Belt Conveyor will receive refuse from belt conveyor BC-7 and transfers to belt conveyor BC-13 when installed. (* Not Yet Constructed in 2014 - belt conveyors will be added as the refuse pile is developed)	600	5,256,000	PE	B A	TP-25 TP-26	PE PE
BC-13	Not Yet Constructed *	5 and 8	36" Refuse Belt Conveyor will receive refuse from belt conveyor BC-8 and transfers to belt conveyor BC-14 when installed. (* Not Yet Constructed in 2014 - belt conveyors will be added as the refuse pile is developed)	600	5,256,000	PE	B A	TP-26 TP-27	PE PE
BC-14	Not Yet Constructed *	5 and 8	36" Refuse Belt Conveyor will receive refuse from belt conveyor BC-13 and transfers to belt conveyor BC-15 when installed. (* Not Yet Constructed in 2014 - belt conveyors will be added as the refuse pile is developed)	600	5,256,000	PE	B A	TP-27 TP-28	PE PE
BC-15	Not Yet Constructed *	5 and 8	36" Refuse Belt Conveyor will receive refuse from belt conveyor BC-14 and transfers to radial stacker RS-4 when installed. (* Not Yet Constructed in 2014 - belt conveyors will be added as the refuse pile is developed)	600	5,256,000	PE	B A	TP-28 TP-39	PE PE
RS-4	M 7/2009 C 5/2009	5 and 8	36" Radial Stacker receives refuse from refuse belt conveyor BC-7 or BC-8 or BC-13 or BC-14 or BC-15 as the belt conveyors are brought into service as the refuse area is developed. Endloaders and trucks will be utilized to develop the refuse area.	600	5,256,000	PE	B A A	TP-39 TP-40 TP-41 TP-42	PE MD MD MD
BC-17	M 11/2010 C 3/2009		36" Wet belt-press material conveyor receives material from prep plant and transfers onto belt conveyor BC-18	600	5,256,000	PE	A	TP-45	PE
BC-18	C 6/2009		36" Wet belt-press material conveyor receives material from belt conveyor BC-17 and transfers to stockpile SP-8	600	5,256,000	PE	B A	TP-45 TP-46	PE MD
SP-8	C 10/2010	5 and 8	Open Belt-Press Refuse Material Stockpile - maximum 5,000 tons capacity, 10,000 ft <sup>2</sup> base area and 20' height - receives refuse from belt conveyor BC-18. Material is then loaded onto trucks by endloader and taken to the refuse development area.	600	2,628,000	N	B A	TP-46 TP-41	MD MD

In accordance with 40 CFR 60 Subpart Y, coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after April 28, 2008 shall not discharge gases which exhibit 10 percent opacity or greater. For open storage piles constructed, reconstructed, or modified after May 27, 2009, the permittee shall prepare and operate in accordance with a fugitive coal dust emissions control plan that is appropriate for site conditions.

All registered affected facilities under Class II General Permit G10-D are subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

Control Device Abbreviations: FE - Full Enclosure; FW - Full Enclosure with Water Sprays; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; MD - Minimize Drop Height; and NC - No Control.

### Storage Tanks

Source	Status			Design Cap	pacity		G10-D
ID No.		Content	Volume	Diameter	Throughput	Orientation	Applicable Section(s)
T-1	Existing	Diesel	2,000	5'	39,240 gallons	Horizontal	10
T-2	Existing	Diesel	8,000	5'	81,500 gallons	Horizontal	10
T-3	Existing	Diesel	8,000	5'	82,310 gallons	Horizontal	10
T-4	Existing	Diesel	5,000	5'	56,460 gallons	Horizontal	10
T-5	Existing	Diesel	1,000	5'	29,150 gallons	Horizontal	10
T-6	Existing	Diesel	500	5'	12,400 gallons	Horizontal	10
T-7	Existing	Gasoline	2,000	5'	23,500 gallons	Horizontal	10

## **DESCRIPTION OF FUGITIVE EMISSIONS**

Fugitive emissions from the facility include particulate emissions from haulroads, stockpiles, and work areas. The haulroad surfaces are course gravel and are used by raw coal, clean coal, refuse trucks and by endloaders/dozers. Water is applied to the haulroads as needed via a water truck.

#### SITE INSPECTION

John Moneypenny of the DAQ's Compliance and Enforcement Section performed a scheduled full on-site targeted inspection on June 12, 2012. Mr. Moneypenny's notes from the inspection memo were as follows: "No problems found..." The facility was found to be in compliance at the time of the inspection and given a status code of 30 - In Compliance. The facility is due to be inspected by Brian Tephabock of the DAQ's North Central Regional Office.

Directions listed in the application stated to travel 3.1 miles north of the Maidsville post office on Route 53 following the river, after cresting the bluff go approximately 0.8 miles and turn left, go 0.5 miles west on the dirt road and the plant is on the right (located by Longview Power Plant).

## ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 Fifth Edition "Compilation of Air Pollution Emission Factors", Volume 1. Control efficiencies were applied based on "Calculation of Particulate Matter Emission - Coal Preparation Plants and Material Handling Operations." The emission factors for crushing/breaking and screening operations were obtained from the Air Pollution Engineering Manual - Air & Waste Management Association - June 1992. The calculations were performed by the applicant's consultant using the DAQ's G10-C Excel Emission Calculation Spreadsheet and were checked for accuracy and completeness by the writer. The increase in emissions calculations were performed by the writer using the DAQ's G10-C Excel Emission Calculation Spreadsheet and a copy has been attached.

The proposed modification will result in an increase in the facility's potential to discharge controlled particulate matter emissions of zero pounds per hour (lb/hour) and 0.41 tons per year (TPY) of particulate matter (PM), of which zero lb/hour and 0.19 TPY will be particulate matter less than 10 microns in diameter (PM $_{10}$ ). Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- Increase in Emissions - Coresco, LLC		rolled nissions	Controlled PM <sub>10</sub> Emissions				
Maidsville Coal Preparation Plant	lb/hour	TPY	lb/hour	TPY			
	Fugitive Emissions						
Open Storage Pile Emissions	0.00	0.00	0.00	0.00			
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00			
Paved Haulroad Emissions	0.00	0.00	0.00	0.00			
Fugitive Emissions Total	0.00	0.00	0.00	0.00			
		Point Sour	ce Emissions				
Equipment Emissions	0.00	0.00	0.00	0.00			
Transfer Point Emissions	0.00	0.41	0.00	0.19			
Point Source Emissions Total (PTE)	0.00	0.41	0.00	0.19			
INCREASE IN EMISSIONS	0.00	0.41	0.00	0.19			

The proposed modification will result in a new facility-wide potential to discharge controlled particulate matter emissions of 462.13 pounds per hour (lb/hour) and 1,255.23 tons per year (TPY) of particulate matter (PM), of which 144.81 lb/hour and 402.17 TPY will be particulate matter less than 10 microns in diameter (PM $_{10}$ ). Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- New Facility-wide Emissions - Coresco, LLC	1	rolled nissions	Controlled PM <sub>10</sub> Emissions		
Maidsville Coal Preparation Plant	lb/hour	TPY	lb/hour	TPY	
		Fugitive I	Emissions		
Open Storage Pile Emissions	6.98	30.56	3.28	14.36	
Unpaved Haulroad Emissions	414.33	1,074.96	122.29	317.29	
Paved Haulroad Emissions	0.00	0.00	0.00	0.00	
Fugitive Emissions Total	421.30	1,105.51	125.57	331.65	
		Point Source	e Emissions	-	
Equipment Emissions	23.20	97.52	10.90	45.83	
Transfer Point Emissions	17.63	52.20	8.34	24.69	
Point Source Emissions Total (PTE)	40.83	149.72	19.24	70.52	
FACILITY EMISSIONS TOTAL	462.13	1,255.23	144.81	402.17	

## **REGULATORY APPLICABILITY**

NESHAPS and PSD have no applicability to the modified facility. The modification of Coresco, LLC's existing wet wash coal preparation plant is subject to the following state and federal rules:

45CSR5 To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas

The facility is subject to the requirements of 45CSR5 because it meets the definition of "Coal Preparation Plant" found in subsection 45CSR5.2.4. The facility should be in compliance with Section 3 (less than 20% opacity) and Section 6 (fugitive dust control system and dust control of the premises and access roads) when the particulate matter control methods and devices proposed are in operation.

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The proposed modification is subject to the requirements of 45CSR13 because it will result in an increase in emissions less than six (6) pounds per hour and ten (10) tons per year of a regulated pollutant (PM and PM<sub>10</sub>). The applicant has submitted an application for a Class II administrative update to their existing General Permit registration. The applicant published a Class I legal advertisement in *The Dominion Post* on November 16, 2016 and submitted the \$300 application fee for a Class II administrative update to a General Permit.

45CSR16 Standards of Performance for New Stationary Sources 40 CFR 60 Subpart Y: Standards of Performance for Coal Preparation and Processing Plants

This facility is subject to 40 CFR 60 Subpart Y because it was constructed and modified after October 24, 1974 and processes more than 200 tons of coal per day. The proposed modification does not involve the construction of any equipment which are defined as affected facilities and subject to 40 CFR 60 Subpart Y. Therefore, the proposed modification is not subject to 45 CSR 16, which incorporates by reference 40 CFR 60 Subpart Y - Standards of Performance for Coal Preparation Plants. However, the existing equipment at the facility remains subject to 40 CFR 60 Subpart Y. The facility should be in compliance with Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with

a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

### 45CSR30 Requirements for Operating Permits

In accordance with 45CSR30 Major Source Determination, the facility is not listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's potential to emit will be 84.88 TPY for PM<sub>10</sub> (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility remains a nonmajor source subject to 45CSR30. The facility is not subject to the permitting requirements of 45CSR30 and is classified as a deferred source.

The proposed modification of Coresco, LLC's wet wash coal preparation plant is <u>not</u> subject to the following state and federal rules:

45CSR14 Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration

In accordance with 45CSR14 Major Source Determination, the facility is not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, it must have the potential to emit 250 TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility's potential to emit will be 180.28 TPY for PM (open storage piles and point sources combined), which is less than the 45CSR14 threshold of 250 TPY for a regulated air pollutant used to define a major stationary source. Therefore, the proposed modification is not subject to the requirements set forth within 45CSR14.

40 CFR 60 Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Pursuant to §60.110b, 40 CFR 60, Subpart Kb applies to "each storage vessel with a capacity greater than or equal to 75 cubic meters (m³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984." The largest diesel storage tank located at the facility is 8,000 gallons (approximately

30.283 m<sup>3</sup>), which is below the minimum size threshold. Therefore, Subpart Kb *does not* apply to the proposed storage tank.

## **TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS**

A toxicity analysis was not performed because the primary pollutants that will be emitted from this facility are PM (particulate matter) and  $PM_{10}$  (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

### **AIR QUALITY IMPACT ANALYSIS**

Air dispersion modeling was not performed due to the size and location of this facility and the extent of the proposed modification. This facility is located in Monongalia County, WV, which is currently in attainment for PM (particulate matter) and  $PM_{10}$  (particulate matter less than 10 microns in diameter). This modified facility will remain a minor source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

### **MONITORING OF OPERATIONS**

The coal processing and conveying equipment and storage areas should be observed to make sure that the facility is meeting the applicable visible emission standards of 40 CFR 60, Subpart Y. Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall not exceed 10 percent (10%) opacity as stated in 40 CFR 60.254(b). Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the maximum 10% opacity limitation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

#### RECOMMENDATION TO DIRECTOR

The information contained in this application for a Class II administrative update indicates that compliance with all applicable regulations should be achieved when all of the proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. No

comments were received during the comment period. Therefore, the granting of a General Permit G10-D registration to Coresco, LLC for the modification of their existing wet wash coal preparation plant located near Maidsville, Monongalia County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

January 19, 2017

Date

# \ /9/17 DPR

## **EMISSIONS SUMMARY**

**Facility Emissions Total** 

Name of applicant:

Coresco, LLC

Name of plant:

G10-D102G - Class II

1/9/2017

## Particulate Matter or PM (for 45CSR14 Major Source Determination)

	Uncont	rolled PM	Contr	olled PM
[	lb/hr	TPY	lb/hr	TPY
	FUGITIV	E EMISSIONS		
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	0.00	0.00	0.00	0.00
Equipment Emissions	0.00	JRCE EMISSIONS	0.00	0.00
Transfer Point Emissions	0.00	2.05	0.00	0.41
Point Source Emissions Total*	0.00	2.05	0.00	0.41
lote: Point Source Total Controlled PM TPY e				0.41
		or the state of th	Timation (GGG BGIOW)	
Facility Emissions Total	0.00	2.05	0.00	0.41
acility Linissions Total				

*Facility Potential to Emit (PTE) (	(Baseline Emissions)	=	0.41
(Based on Point Source Total controlled PM TPY emissions	from above)	ENTER ON LINE 26 OF	APPLICATION

## Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

0.00

L	Uncont	rolled PM-10	Contro	olled PM-10
	lb/hr	TPY	lb/hr	TPY
	FUGITI\	/E EMISSIONS		<u> </u>
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	0.00	0.00	0.00	0.00
	POINT SO	URCE EMISSIONS		
Equipment Emissions	POINT SO	URCE EMISSIONS	0.00	0.00
Equipment Emissions Transfer Point Emissions			0.00	0.00
	0.00	0.00		

0.97

0.00

0.19

INPUTS			Page 1
Include all information for each emission source and transfer point as listed in the permit application.	Name of applicant: Name of plant:	Coresco, LLC G10-D102G - Class II	_
		1/9/2017	_

## 1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

### 1a. PRIMARY CRUSHING

Primary Crusher ID Number	Description	Maximum Material Processing Capacity TPH TPY		Control Device ID Number	Control Efficiency %
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<del></del>					
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#### 10. SECUNDARY AND TERTIARY CRUSHING

	<del></del>				
Secondary		Maximu	m Material	Control	Control
& lertiary	Description	Processir	ng Capacity	Device	Efficiency
Crusher ID		TPH	IPY	ID Number	%
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				_	
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#### 1c. SCREENING

Secondary		N i	44.1.1	Control	Cantag
& Lertiary			n Material	Control Device	Control
-	Description	Processir	Processing Capacity		Efficiency
Crusher ID		TPH	1PY	ID Number	%

## 2. TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U≃	Mean Wind Speed (mph)	7	

Transfer	Transfer Point Description	Material		Maximum	Control	Contro
Point	Include ID Numbers of all conveyors,	Moisture		ansfer Rate	Device	Efficien
ID No.	crushers, screens, stockpiles, etc. involved	Content %	TPH	TPY	ID Number	%
			T			
	OLD TRANSFER POINTS					
TP-1	BC-1 to RS1/BC/9	5	(950)	(3,000,000)	FE	80
						L
TP-29	BC-9 to BC-10/BC-12		(050)	(0.000.000)		
11 -20	DO-3 10 DO-10/DO-12	5	(950)	(3,000,000)	FE	80
TP-1	MODIFIED TRANSFER POINTS					
17-1	BC-1 to RS1/BC/9	5	950	5,020,000	FE	80
			-			
ΓP-29	BC-9 to BC-10/BC-12	5	950	5,020,000	FE	80
				5,525,655		
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3.	WIND FROSION OF STOCKPILES	(including all stockniles of raw coal	I clean coal coal refuse of	a 1

p =	number of days per year with precipitation >0.01 inch	
f =	percentage of time that the unobstructed wind speed	
	exceeds 12 mph at the mean pile height	

Source	Stockpile	Silt	Stockpile	Control	Control
ll .					
ID No.	Description	Content of	base area	Device	Efficiency
		Material %	Max. sqft	ID Number	%
			-		-
	-				-
		<u> </u>			

### 4. UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
M <sub>dry</sub> =	surface material moisture content (%) - dry conditions	0.2

		Number	Mean	Mean	Miles	Maximum	Maximum	Control	Control
Item	Description	of	Vehicle	Vehicle	per	Trips Per	Trips Per	Device	Efficiency
Number		wheels	Weight(tons)	Speed (mph)	qirT	Hour	Year	ID Number	%
1									
2									
3									
4									
5									
6									
7									
8									
									-

## 5. INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

sL=	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
				<u>'                                      </u>			
1							
2							
3							
4							
5							
6							
7							
8							